

WHAT IS CLAIMED IS:

1. A transfer sheet comprising:
  - a base sheet;
  - a thermal transfer layer having a plurality of transfer region sets, each transfer region set having a plurality of transfer regions with functions different from each other; and
  - identification marks formed in the transfer region sets, respectively;wherein the identification marks formed in the transfer region sets consist of at least two different types.
2. The transfer sheet according to claim 1, wherein the identification marks of one transfer region set are printed by using printing plates on a printing cylinder different from those for the other transfer region sets on the printing cylinder, and have forms different from those for the other transfer region sets.
3. The transfer sheet according to claim 2, wherein the identification marks of one transfer region set represent information about the position of the corresponding transfer region set.
4. The transfer sheet according to claim 1, wherein the identification marks of one transfer region set are formed in each transfer region thereof, respectively, the identification marks of the transfer region set have the same form as those for the other transfer region sets, and the identification mark of one of the transfer regions of the transfer region set has a characteristic different from those of the identification marks formed in the other transfer regions of the same transfer region set.
5. The transfer sheet according to claim 1, wherein the identification marks of one transfer region set have the same form as those for the other transfer region sets, and the identification marks of the transfer region set have

10059013 "013002"

characteristics different from those for the other transfer region sets.

6. The transfer sheet according to claim 4 or 5, wherein the characteristics of the identification marks are represented by transmissivities or reflectivities to light rays used for detecting the identification marks.

7. The transfer sheet according to claim 6, wherein the different identification marks have different transmissivities or reflectivities, respectively, and the difference between the largest and the smallest transmissivity or reflectivity is 10% or below of the largest one when the light rays have a wavelength in the range of 800 to 950 nm.

8. The transfer sheet according to claim 4 or 5, wherein the identification marks of one transfer region set are printed by using printing plates on a printing cylinder different from those for the other transfer region sets on the printing cylinder, and the identification marks of the transfer region set have characteristics different from those for the other transfer region sets.

9. The transfer sheet according to claim 8, wherein the identification marks of one transfer region set represent information about the position of the corresponding transfer region sets.

10. A transfer sheet comprising:

a base sheet;

a thermal transfer layer having a plurality of transfer region sets, each transfer region set having a plurality of transfer regions with functions different from each other; and identification marks formed in the transfer region sets, respectively;

wherein the identification marks comprises an identification mark having a plurality of parts, one part having

2005043 03303

a characteristic different from those of the other parts.

11. The transfer sheet according to claim 10, wherein the identification mark having a plurality of parts is provided in each transfer region set.

12. The transfer sheet according to claim 10, wherein the identification marks of one transfer region set are formed in the transfer regions, respectively, and the identification mark of one of the transfer regions of the transfer region set has a characteristic different from those for the identification marks of the other transfer regions of the same transfer region set.

13. The transfer sheet according to any one of claims 10 to 12, wherein

the characteristics of the identification marks are represented by transmissivities or reflectivities to light rays used for detecting the identification marks.

14. The transfer sheet according to claim 13, wherein the different identification marks have different transmissivities or reflectivities, respectively, and the difference between the largest and the smallest transmissivity or reflectivity is 10% or below of the largest one when the light rays have a wavelength in the range of 400 to 700 nm.

15. The transfer sheet according to claim 13, wherein the different identification marks have different transmissivities or reflectivities, respectively, and the largest transmissivity or reflectivity is 1 to 10% and the smallest transmissivity or reflectivity is below 1% when the light rays have a wavelength in the range of 800 to 950 nm.

16. A method of manufacturing a transfer sheet comprising a base sheet, a thermal transfer layer having a plurality of transfer region sets, each transfer region set having a plurality

10059613.013002

of transfer regions with functions different from each other, and identification marks formed in the transfer region sets, said method comprising the steps of:

forming the thermal transfer layer having the plurality of transfer region sets on the base sheet by using a plurality of transfer region printing cylinders, each provided with a plurality of printing plates for printing the transfer regions of different functions; and

forming the different identification marks in the transfer region sets.

17. The method according to claim 16, wherein

the identification marks of one transfer region set are printed by using printing plates on a printing cylinder different from those for the other transfer region sets on the printing cylinder, and have forms different from those for the other transfer region sets.

18. The method according to claim 16, wherein

the identification marks of one transfer region set, for each transfer region, are printed by using printing plates on a printing cylinder different from those for the other transfer region sets on the printing cylinder and have the same form, and the identification mark of one of the transfer regions of the transfer region set has a characteristic different from those for the identification marks of the other transfer regions of the same transfer region set.

19. The method according to claim 16, wherein

the identification marks of one transfer region set are printed by using printing plates on a printing cylinder different from those for the other transfer region sets on the printing cylinder, and the identification marks of the transfer region set have characteristics different from those for the other transfer region sets.

20. A transfer printing method using a transfer sheet

10055013-013002

comprising a base sheet, a thermal transfer layer having a plurality of transfer region sets, each transfer region set having a plurality of transfer regions with functions different from each other, and identification marks formed in the transfer region sets, said method comprising the steps of:

recording information in the identification marks of the transfer region sets;

reading the identification marks of the transfer region sets, and

correcting transfer conditions on the basis of the information represented by the identification marks, and transferring the transfer regions.

21. The transfer sheet according to claim 2, wherein the identification marks are formed in the transfer regions, respectively, of each transfer region set, and the identification mark identifying one of the transfer regions of each transfer region set has a form different from those of the identification marks of the other transfer regions of the same transfer region set.

22. The transfer sheet according to claim 2, wherein the identification marks are formed in the transfer regions, respectively, of each transfer region set, and the identification mark identifying one of the transfer regions of each transfer region set has the same form as those of the other transfer regions of the same transfer region set.

23. The transfer sheet according to claim 2, wherein each identification mark consists of a plurality of parts respectively having different properties.

24. The transfer sheet according to claim 1, wherein one of the transfer region sets is provided with an identification mark, and others are not provided with any identification mark.

200503-013002

25. The transfer sheet according to claim 24, wherein the transfer region sets not provided with any identification mark are arranged successively behind the transfer region set provided with the identification mark.

26. A transfer sheet comprising:

a base sheet; and

a thermal transfer having a plurality of transfer region sets each including a plurality of transfer regions with functions different from each others;

wherein one of the transfer regions is provided with an identification mark, and others are not provided with any identification mark.

27. The transfer sheet according to claim 26, wherein the transfer region sets not provided with any identification mark are arranged successively behind the transfer region set provided with the identification

2005013 013002